

Course Description	
Course Code	YZ 105
Course Name	LINEAR ALGEBRA FOR ENGINEERS
Prerequisite Courses	None
Language of the Course	The English
Course Coordinator	
Instructor(s)	
Course Assistants	
The aim of the course	Matrices, linear systems of equations, determinants, vector spaces, subspaces, bases, dimension, linear transformations. Through the course of this method held understand math mathematical thinking orally and in writing is to ensure the development of the ability to express.
Course Content	With this course to the students of Computer Engineering Linear Algebra to transfer information, to increase the power of reasoning, used in part to teach the mathematical concepts.

Weekly Course Content	
Week 1	Matrices,
Week 2	Matrix operations,
Week 3	Special Matrices
Week 4	Elementary operations and applications
Week 5	Determinants
Week 6	Systems of linear equations and solve systems of equations
Week 7	Homogeneous systems of linear equations
Week 8	Midterm Exam
Week 9	Non-homogeneous systems of linear equations
Week 10	Cramer Method
Week 11	Gauss Elimination Method
Week12	Vectors,
Week 13	The operations are performed by vectors.
Week 14	Vector multiplication, inner product, mixed product.
Week 15	Final Exam

Course Learning Outcomes	
1	They have put new information on General Mathematics lessons.
2	To understand matrices, linear systems of equations, determinants, and vector spaces
3	To understand the methods of mathematical thinking
4	Effective oral and written communication skills must be won.
5	To learn of the application areas matrices and determinants.
6	To learn how to solve systems of linear equations.

Contribution of the Course to Program Qualifications		Contribution Level
01	The student will have the ability to apply analytical approach, mathematics and science knowledge in software and engineering issues.	4
02	The student will have the ability to identify, define, formulate and solve a problem in software and computer systems.	3
03	The student will have gains scientific research skills in software and engineering problems, has the ability to design a system, part or process.	4
04	The student will have the ability to use the design capability, techniques and tools required for engineering applications.	5
05	The student will have the ability to design, implement and interpret experimental work and software projects by analyzing the results.	3
06	The student will have the ability to work between disciplines and teamwork.	3
07	The student will have the ability to work in international environments and adapt to different cultures.	3
08	The student will have verbal and written communication skills in Turkish and English.	3
09	The student will have the awareness of the necessity of lifelong learning and the ability to realize it.	4
10	The student will gain knowledge of legal issues with the awareness of professional and ethical responsibility.	3
11	The student will have managerial skills (leadership, organization, time and risk management, quality awareness, efficiency, etc.).	4
12	The student will have the ability to participate in social activities, to acquire regular sports habits and to use time in the best way.	3
13	The student will have the ability to find unusual ways and produce projects.	4
14	The student will have professional self-confidence, being an entrepreneur and taking initiative.	4
15	It is sensitive about the problems of the age and looks after the national interests.	3

ECTS WORKLOAD			
	Number	Duration (hours)	Number*Duration
Face to face education	14	3	42
Out-of-class study time (pre-study, reinforcement)	0	0	0
Homeworks	0	0	0
Presentation / Seminar preparation	0	0	0
Quizzes	0	0	0
Preparation for midterm exams	1	10	10
midterm exams	1	2	2
Project (Semester assignment)	0	0	0
Lab	0	0	0
field work	0	0	0
Preparation for the final exam	1	10	10
Semester final exam	1	2	2
Research	0	0	0
TOTAL WORKLOAD			66
ECTS			2

Evaluation		
SEMESTER EVALUATION	Number	Contribution Percentage
Midterm	1	40
Quiz	0	0
Homework	0	0
SEMESTER TOTAL		40
Contribution rate of mid-term evaluations to success		40
Contribution rate of the final exam to success		60
GRAND TOTAL		100

RESOURCES

Textbook	D. Taşcı, Lineer Cebir, Ankara, 2012.
Helpful Resources	1. F.Başar, Lineer Cebir, Sürat Üniversite Yayınları, 2012 2. H.H.Hacısalihoğlu, Lineer Cebir, Gazi Üniversitesi Yayınları,2002.